

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-13 are pending in this application. Claim 1 is independent. Claims 2-13 all depend, directly or indirectly, from claim 1.

Amendments to Claims

Claim 1 is amended to incorporate the scope of claims 2, 4, 5 and 6. Claims 9-12 are amended to correct the claim dependency. Claims 2, 4, 5 and 6 are cancelled. No new matter is introduced by these claims.

Rejections under 35 U.S.C. §§ 102(b) and 103(a)

In the Office Action, claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated under U.S. Patent No. 5,449,501 to Luebke et al (Luebke). To the extent this rejection may apply to claim 1, as amended, this rejection is respectfully traversed.

Claim 1, as amended, requires bulk hydrogenation of an olefin-containing feedstock containing a plurality of different unsaturated olefinic hydrocarbon compounds. In particular, “bulk hydrogenation” as used in claim 1 is defined by Applicant as concurrently hydrogenating a number of different unsaturated olefinic hydrocarbon compounds that are present in the olefinic feedstock. See page 1, lines 21-24 of the application as filed.

In the Office Action, Luebke was cited as allegedly disclosing a catalytic distillation process for total hydrogenation of olefinic hydrocarbons in the distillation column.

The Examiner asserted the rejection, pointing to the sentence in Luebke that "Catalytic distillation has also been proposed... for a number of the other reactions including... the selective or total hydrogenation of olefinic hydrocarbons." See Luebke at col. 2, lines 33-39.

However, the Examiner's reliance on Luebke is misplaced. Said sentence in Luebke is merely stating what has been *proposed* in the past. Significantly, there has been no prior art cited which discloses bulk hydrogenation of olefinic hydrocarbons as required by claim 1. The absence of any prior art which discloses bulk hydrogenation of olefinic hydrocarbons means that, in fact, there has been no such disclosure. The only disclosures had been for the hydrogenation of olefins, usually for selective hydrogenation or total hydrogenation of small amount of unsaturated compounds, including olefins, diolefins and acetylenes. The diolefins and acetylenes are often contaminants in streams containing high concentrations of mono olefins, such as propylene, which are valuable in numerous reactions. The olefins are a valuable material and the diolefins and/or acetylenes are contaminants which are frequently detrimental in processes using propylene or other olefins. The hydrogenation disclosed in the art heretofore has been largely for the purification of olefins. Usually the hydrogenation of the olefins has been incidental and undesirable in these reactions. Additionally, none of the art cited in the '501 patent teaches hydrogenation, let alone the intentional hydrogenation of any amount of olefins.

Further, the operation of hydrogenation in bulk reaction is not a foregone conclusion. Note in the specification at page 3, lines 14-20, that:

"While a single unsaturated olefinic hydrocarbon compound may, at least in principle, remain unhydrogenated or unreacted in the catalytic distillation zone, two or more different unsaturated olefinic hydrocarbon compounds will normally remain unhydrogenated or unreacted. These unreacted or unhydrogenated

compounds are usually either the lightest compounds in the feedstock or the heaviest compounds in the feedstock, with the process of the invention thus resulting in these compounds being separated, in the catalytic distillation zone, from the hydrogenated compounds.”

In other words, there are heavier and lighter fractions that may escape and results as low as 30% conversion may be expected.

In the actual absence of art on the hydrogenation, Applicant would suggest that amended claim 1, which now recites the “usual” bulk feed of the present invention, is not anticipated or suggested by Luebke regarding catalytic distillation reactions involving hydrogenation and that amended claim 1 is novel and non-obvious in view of Luebke.

Further, a mere proposal to attain a goal, as in Luebke, cannot anticipate or render obvious an apparatus or process that in fact attains that goal. Taken in context, the Examiner’s rejection indicates that any past aspirations may render obvious future discoveries. However, if one simply proposes to manufacture a car having an engine that is rated for 500 miles per gallon of gasoline, there is no teaching, suggestion or motivation on *how* the proposed objective may be accomplished or that the proposed objective may *even* be accomplished. A proposal for curing cancer or AIDS likewise does not render obvious the cure, when and if discovered. Lofty goals and aspirations mentioned in passing in patents or other publications are not, by any means, concrete teachings that may be relied upon for formulating rejections, and the rejection forwarded by the Examiner is improper.

Thus, although Luebke discloses a general process and apparatus for catalytic distillation, it is not sufficiently enabling with respect to *how* to conduct bulk hydrogenation of a

plurality of different unsaturated olefinic hydrocarbon compounds, as required by claim 1. In fact, the total lack of prior art regarding bulk hydrogenation, as presently required by claim 1, reinforces the novelty and inventive step of the present claims. Applicant has disclosed and claimed that which the cited prior art sought to attain but apparently could not accomplish. Thus, Luebke neither anticipates, nor renders obvious the present claim 1. The inventive leap necessary to arrive at the cure for cancer or AIDS, a car engine having a rating of 500 miles per gallon, etc., cannot be diminished due to prior aspirations to achieve the same, just as the inventive leap in the present claims should not be diminished due to the aspirations or "proposals" in Luebke.

As shown above, Luebke fails to teach, disclose, or suggest the aspects of bulk hydrogenation as required by claim 1. Accordingly, withdrawal of the rejections under §§ 102(b) and 103(a) is respectfully requested.

With respect to claims 2-3 and 7-13, claims 3 and 7-13 are all patentable, at least by virtue of their dependence, direct or indirect, from allowable claim 1. Accordingly, withdrawal of the Examiner's § 103(a) rejections of claims 3 and 7-13 is respectfully requested.

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number

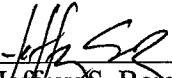
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Attachments